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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/732,016

12/08/2000

Jens Bergqvist

040010-896

1620

27045

7590

06/01/2004

ERICSSON INC.  
6300 LEGACY DRIVE  
M/S EVR C11  
PLANO, TX 75024

EXAMINER

WILSON, ROBERT W

ART UNIT

PAPER NUMBER

2661

9

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/732,016

Applicant(s)

BERGQVIST, JENS

Examiner

Robert W Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 1-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

**1.0** The application of Jens Bergqvist for the application entitled "METHOD IN A TELECOMMUNICATION SYSTEM" filed on 12/08/2000 and requesting foreign priority based upon SWEDEN 9904526-2 12/10/1999. Claims 1-10 are pending.

#### *Claim Rejections - 35 USC § 103*

**2.0** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**3.0** **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shakhgildian (U.S. Patent No.: 6,584,325 B1).

Referring to **Claim 1**, Shakhgildian teaches: A method for congestion (col. 2 lines 40-50) control in the cells (Base Stations in which cells are associated with per col. 2 lines 63-67) of a cellular telecommunications system (Fig 2)

A plurality of radio base stations (RBS1-RBS3) each of which serving one or more of said cells and at least one of said cells being congested (Base per col. 2 lines 63-67) and congestion per col. 2 lines 40-45)

A plurality of user equipments (UE1-UE4) as least one of which located in a congested cell (Subscriber Units per col. 2 line 57-col. 3 line 35 or 205 per Fig 2 or user equipment)

At least one centralized control unit to which said radio base stations are connected (controller per col. 1 line 38) characterized by:

Broadcasting in said congested cells messages indicating call admission information for at least one of the carrier frequencies that are supplied within the accessible area of the user equipments located in said congested cell (Base Stations sends uplink interference level to subscriber units per col. 2 line 57-col. 3 line 35)

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Shakhgildian does not expressly call for: broadcasting admission information for a carrier frequency but sends or broadcasts uplink interference level per col. 2 line 57-col. 3 line 35 associated with CDMA per col. 1 line 58-col. 2 line 55.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the subscriber unit knows which carrier frequency is associated with the Interference level sent by the base station in order for the invention to work.

### **Claim Rejections - 35 USC § 103**

**4.0** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5.0** **Claims 2-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shakhgildian (U.S. Patent No.: 6,584,325 B1) in view of Goldman (GB 2173377A which is an IDS document of record).

Referring to **Claims 2-8**, Shakhgildian teaches: method of claim 1,

Shakhgildian does not expressly call for:

Presenting said call admission information to the user equipments located in the congestion area indicating restricted access to at least one of the carrier frequencies as claimed in **Claim 2**,

Presenting said call admission information to the user equipments in a congested cell by means of indicating permitted access to at least one of the carrier frequencies as claimed in **Claim 3**.

Presenting call admission information for the carrier frequency as call admission information for the set of neighbored cells that apply said carrier frequency as claimed in **Claim 4**.

Presenting call admission information in a congested cell by means of a list comprising carrier frequency for each of its neighbored cells as claimed in **Claim 5**.

That said list also comprising congestion status for at least one of its neighbouring cells as claimed in **Claim 6**.

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Retrieving said admission information from the radio network controller as the centralised control unit as claimed in **Claim 7**.

Storing said admission information in the radio base stations as claimed in **Claim 8** but teaches sending uplink characteristics per col. 2 line 57-col. 3 lines 35

Goldman (GB 2173377 A which is an IDS document of record teaches:

Presenting said call admission information to the user equipments located in the congestion area indicating restricted access to at least one of the carrier frequencies (The Base Station sends a list of voice channel assignment or frequencies which are available and leaves out the ones in which communication is denied or restricted per Pg 1 lines 55-Pg 2 line 5) as claimed in **Claim 2**,

Presenting said call admission information to the user equipments in a congested cell by means of indicating permitted access to at least one of the carrier frequencies (The Base Station sends a list of voice channel assignment or frequencies which are available or permitted per Pg 1 lines 55-Pg 2 line 5) as claimed in **Claim 3**.

Presenting call admission information for the carrier frequency as call admission information for the set of neighboured cells that apply said carrier frequency (The Base Station sends a list including other cells of voice channel assignment or frequencies which are available or permitted per Pg 1 lines 55-Pg 2 line 5) as claimed in **Claim 4**

Presenting call admission information in a congested cell by means of a list comprising carrier frequency for each of its neighboured cells (The Base Station sends a list including other cells or neighboring cells of voice channel assignment or frequencies which are available or permitted per Pg 1 lines 55-Pg 2 line 5) as claimed in **Claim 5**.

That said list also comprising congestion status for at least one of its neighbouring cells (The Base Station sends a list including other cells of voice channel assignment or frequencies which are available or permitted or status per Pg 1 lines 55-Pg 2 line 5) as claimed in **Claim 6**.

Retrieving said admission information from the radio network controller as the centralised control unit (The Base Station sends a list including other cells of voice channel assignment or frequencies which are available or permitted per Pg 1 lines 55-Pg 2 line 5. It would have been obvious to one of ordinary skill in the art at the time of the invention that the central control unit would have to forward this information to the base stations in order for this invention to work) as claimed in **Claim 7**.

Storing said admission information in the radio base stations (The Base Station sends a list including other cells of voice channel assignment or frequencies which are available or permitted per Pg 1 lines 55-Pg 2 line 5. It would have been obvious to one of ordinary skill in the art at the time of the invention that the central control unit would have to forward this information to the base stations in order for this invention to work; consequently, this information would also have

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to be stored in the base station so that it could be forwarded to the subscriber units or mobiles also in order for this invention to work) as claimed in **Claim 8**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the list of carrier frequency information or Goldman to the method of broadcasting uplink characteristics of Shakhgildian in order to build a cellular network which minimizes the power drain on the battery drain of the subscriber per col. 5 lines 50-53 per Shakhgildian.

***Claim Rejections - 35 USC § 103***

**6.0** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**7.0** **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shakhgildian (U.S. Patent No.: 6,584,325 B1).

Referring to **Claim 9**, Shakhgildian teaches: A method for congestion (col. 2 lines 40-50) control in the cells (Base Stations in which cells are associated with per col. 2 lines 63-67) at call setup (col. 5 lines 44-53) in a cellular telecommunications system (Fig 2)

A plurality of radio base stations (RBS1-RBS3) each of which serving one or more of said cells and at least one of said cells being congested (Base per Col. 2 lines 63-67) and congestion per col. 2 lines 40-45)

A plurality of user equipments (UE1-UE4) at least one of which located in a congested cell (Subscriber Units per col. 2 line 57-col. 3 line 35 or 205 per Fig 2)

At least one centralized control unit to which said radio base stations are connected (controller per col. 1 line 38) characterized by:

a.) defining a power threshold value (P<sub>thr</sub>) for the total interference level of said congest cell (The subscriber unit receives interference level from the base station & the user calculates uplink performance per col. 4 line 56-col 6 line 5. It would have been obvious to one of ordinary skill in the art at the time of the invention that the subscribers would perform the same function in order to calculate the uplink performance indicator)

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comparing the total uplink interference level with said threshold value, and if said total uplink interference level exceeds said threshold (The subscriber unit receives interference level from the base station & the user calculates uplink performance per col. 4 line 56-col 6 line 5. It would have been obvious to one of ordinary skill in the art at the time of the invention that the subscribers would perform the same function as comparing the total uplink interference level with said threshold value, and if said total uplink interference level exceeds said threshold in order to calculate the uplink performance indicator)

retrieve (23) call admission information about at least one neighbouring cell which is ready to accept a call set up information from said user equipment (The subscriber units receive or retrieve Interference levels from the neighbouring base stations per col. 4 line 56-col. 6 line 5)

Broadcast (24) said call admission information (Base Stations sends uplink interference level to subscriber units per col. 2 line 57-col. 3 line 35)

Shakhgildian does not expressly call for: retrieving call admission information but teaches receiving interference level measurement associated with other cells per col. 2 line 57-col. 3 line 35 or col. 3 line 50-col. 6 line 5

It would have been obvious to one of ordinary skill in the art at the time of the invention that the receiving of interference levels from other base stations performs the same function as retrieving call admission information.

### ***Claim Rejections - 35 USC § 103***

**8.0** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**9.0** **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shakhgildian

(U.S. Patent No.: 6,584,325 B1) in view of Goldman (GB 2173377 A which is an IDS document of record).

Referring to **Claim 10**, Shakhgildian teaches: A method for congestion (col. 2 lines 40-50) control in the cells (Base Stations in which cells are associated with per col. 2 lines 63-67) of a cellular telecommunications system (Fig 2)

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A plurality of radio base stations (RBS1-RBS3) each of which serving one or more of said cells and at least one of said cells being congested (Bases per Col. 2 lines 63-67) and congestion per col. 2 lines 40-45)

A plurality of user equipments (UE1-UE4) at least one of which located in a congested cell (Subscriber Units per col. 2 line 57-col. 3 line 35 or 205 per Fig 2 or user equipment)

At least one centralized control unit to which said radio base stations are connected (controller per col. 1 line 38) characterized by:

Analyzing a received broadcasted call admission information for a certain cell (Analyzing the receiver interference level measurement received from base stations or a certain cell per col. 3 line 57-col. 6 line 5 or Fig 3)

Requesting a call set-up (call setup per col. 5 lines 36-col. 6 line 5)

Shakhgildian does not expressly call for: requesting a call set-up in an unrestricted neighbour cell if access restriction is broadcasted for said cell but teaches sending uplink characteristics per col. 2 line 57-col. 3 lines 35

Goldman (GB 2173377A which is an IDS document of record) teaches: requesting a call set-up in an unrestricted neighbor cell if access restriction is broadcasted for said cell (The reference teaches sending a list of other cells in which channel assignments will not be denied or assignments in unrestricted neighbor cells per Pg 1 line 55-cPg 2 line 5)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the list of carrier frequency information from other cells which will not be denied of Goldman to the method of broadcasting uplink characteristics of Shakhgildian in order to build a cellular network which minimizes the power drain on the battery drain of the subscriber per col. 5 lines 50-53 per Shakhgildian.

### ***Claim Objections***

**10.0 Claims 2, 3, & 5** objected to because of the following informalities:

Regarding **Claims 2 & 3**, the word “frequencies” is misspelled.

Regarding **Claim 5**, The examiner objects to the usage of “means of” and “comprising” because their usage makes the claim a hybrid claim where it is unclear as to whether a method or an apparatus is being claimed. The examiner suggests deleting “means of” and “comprising”.

Appropriate correction is required.



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***Claim Objections***

**10.0** **Claims 1-10** objected to because of the following informalities:

Regarding **Claims 1-10**, Abbreviations appear in parenthesis. It is unclear to the reader whether these are limitations or provided as informational. The examiner suggests deleting the abbreviations in parenthesis. Appropriate correction is required.

***Abstract***

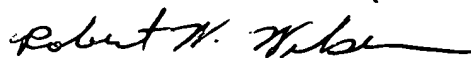
**11.0** The examiner objects to the reference to the figure in the Abstract which is a carry over from the foreign patent. The examiner recommends deletion of this reference. Appropriate action is required.

***Conclusion***

**12.0** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).

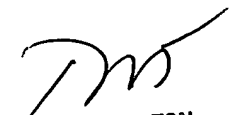
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson  
Examiner  
Art Unit 2661

RWW  
May 5, 2004



DOUGLAS OLMS  
SUPERVISOR